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IN THE

Supreme Court of the United States

OCTOBER TERM, 1905

No. 5. ORIGINAL CAUSE
IN EQUITY

THE STATE OF GEORGIA, BY ITS ATTORNEY GENERAL, JOHN C. HART, *Plaintiff*

vs.

THE TENNESSEE COPPER COMPANY, AND THE DUCKTOWN SULPHUR, COPPER & IRON COMPANY, LIMITED, *Defendants*

Memorandum on Supplemental Affidavits Filed by Leave of the Court October, 1906, by Defendant Tennessee Copper Company on Application of Plaintiff for Preliminary Restraining Order

MARTIN H. VOGEL,
Of Counsel

HOWARD CORNICK,
JOHN H. FRANTZ,
Attorneys for Tennessee Copper Company

EVENING POST JOB PRINTING OFFICE, NEW YORK.

IN THE

Supreme Court of the United States.

OCTOBER TERM, 1906.

STATE OF GEORGIA, by its Attorney-General, JOHN C. HART, Plaintiff, vs. TENNESSEE COPPER COMPANY and DUCKTOWN SULPHUR, COPPER AND IRON COMPANY, LIMITED, Defendants.	No. 5.

MEMORANDUM OF DEFENDANT TENNESSEE COPPER COMPANY ON SUPPLEMENTAL AFFIDAVITS AND EXHIBITS FILED IN THIS CAUSE, OCTOBER, 1906, BY LEAVE OF COURT.

May it please Your Honors:

In this cause, by leave of Court, the defendant Tennessee Copper Company has filed two volumes of supplemental affidavits, with exhibits thereto, relative to the conditions alleged and complained of in the bill. (Reference is respectfully made to the brief and argument filed April, 1906. This memorandum refers simply to the additional affidavits filed herewith.) These affidavits and their exhibits are the result of investigations had in the region of north Georgia alleged to be injured by sulphur

fumes from the Ducktown copper operations, the first examination having been made in the months of May and June, 1906, and a later examination having been made in the months of July, August and September, 1906. Photographs were taken between the dates of May 28 and June 7, 1906, and show the condition of the foliage in the spring of this year, and similar photographs were taken of the same objects showing foliage, so as to demonstrate the condition in the fall of 1906, these latter photographs having been taken between the dates of August 28 and September 5, 1906. These photographs are filed in two series as exhibits to affidavit of Arthur H. Case; first, A-1 to A-53 inclusive, being the photographs taken in the spring; and, second, exhibits B-1 to B-53 inclusive, being the photographs taken in the fall.

There are also filed a series of photographs taken in the fall covering objects which had not been photographed in the spring. These are filed as Exhibits C-1 to C-28 inclusive to the affidavit of Arthur H. Case (Vol. I., pp. 6–14).

In taking affidavits of various citizens of the region alleged to be affected, Edward Hacker, representing the defendant Tennessee Copper Company, went, at the instance of its attorneys, to procure these affidavits, and 128 affidavits were procured, when the said Hacker was instructed by attorneys for the Tennessee Copper Company that no further affidavits should be taken, as they did not care to encumber the record with additional affidavits. These affidavits appear in Vol. I., pp. 14–177.

Affidavit of Edward Hacker, Vol. II., p. 49, shows that similar affidavits could have been obtained from several hundred other residents of that section.

The condition of the woodlands, farms, pastures, roads, streams, &c., are referred to in the affidavits of John M. Clancy, Forester, Volume I., page 1; C. A. Schenck, Forester, Volume II., page 1; C. D. Howe, Forester, Volume II., page 11, and Walter J. Mo-

senthal, Forester, Volume II., page 14, and in the affidavit of citizens in Vol. I., pp. 14–177.

The condition of woodland, farms, &c. existing in the Southern Appalachian Range is fairly stated by Mr. Overton H. Price, Superintendent of Working Plans, Division of Forestry, Department of Agriculture, in an article entitled "Practical Forestry in the Southern Appalachians," which appears in the Year Book of the Department of Agriculture for the year 1900. Reference is made to that article because of the fact that it very clearly sets out the conditions obtaining in the Southern Appalachian region, and because, as will hereinafter be more fully shown, there are conditions of injury to the woodlands of the Southern Appalachian region which are caused through the neglect of the woodland by the inhabitants, and which in the Ducktown district and in the territory alleged to be affected by sulphur fumes are unquestionably and invariably ascribed to the influence of those fumes. From a reading of the above mentioned article by Mr. Price, and a reading of the affidavits of both sides introduced in this cause, there can be no doubt that the territory examined by Mr. Price and covered by his article, even in its depleted condition, is vastly superior in natural resources and in the natural condition of its woodlands to the territory alleged in this cause to be affected by the sulphur fumes.

Just a few days ago, when affidavits in this cause were being prepared for the printer, information was brought that one or two individuals during the summer had been trying to stir up agitation and sentiment against the copper companies for some personal or ulterior motives, and had been obtaining large numbers of affidavits from residents of northern Georgia, and that large numbers of persons who had executed said affidavits had been induced to sign them without reading them and under misapprehension and misrepresentations made to them at the time of signing, and that they would not have

signed if they had known that it was for the purpose of closing down the copper companies. For the purpose of personally ascertaining the situation in this regard Martin H. Vogel, of counsel, went into the district personally and found that this information was true, and sets forth in his affidavit, appearing in Volume II., page 29, the situation as he found it, and also annexes affidavits of citizens of Georgia setting forth these facts, as many as he could obtain in the short time, which affidavits appear in Volume II., pages 32 to 49.

Counsel does not suggest that the Attorney-General of the State of Georgia was aware of these misrepresentations, but believes that he too was misled by the persons instrumental in obtaining these affidavits.

The situation in regard to the condensation of the fumes from the smelters and the manufacture of sulphuric acid therefrom is set forth in the affidavit of Julius H. Susmann, treasurer of the Tennessee Copper Company, Volume II., page 22, supplementing the affidavit of J. Parke Channing, president of the Tennessee Copper Company, filed in this Court in April, 1906.

General Conditions of Forests and Territory.

The territory alleged to be affected in Northern Georgia lies in the foot-hills of the Southern Appalachians. The forests have little or no commercial value whatever for woodlands aside from such value as is given them by the market afforded by the Ducktown District for the sale of fire wood.

The depleted condition of the forests is due to the fact that since the copper operations were begun in 1849 the woodlands have been cleared, first, for the purpose of making charcoal, then for the purpose of obtaining cordwood, and later for the purpose of pasturage.

See affidavits

Jno. M. Clancy, Vol. I., p. 3.
C. A. Schenck, Vol. II., p. 4.
W. J. Mosenthal, Vol. II., p. 17.

The forests consist of a mixture of broad-leafed trees, yellow pines and white pines. The broad-leaf trees predominate, and consist largely of black oak and black jack oak, and these species within the territory alleged to be injured have value for firewood only. The absence of merchantable timber among the hardwoods is in no way ascribable to the influence of sulphur fumes. On the contrary, this absence is explained on the one hand by the extreme sterility of the soil, and, on the other hand, by the removal of the merchantable trees decades past, and finally by the fact that fires have for many years damaged the hardwood trees to an appalling extent.

Affidavit C. A. Schenck, Vol. II., p. 4.
Affidavit of Jno. M. Clancy, Vol. I., p. 2.
Affidavit W. J. Mosenthal, Vol. II., p. 17.

The yellow pine, which consists of about 1 per cent. of the forest of the region alleged to be affected, has no value for lumber—first, because of the fact that the yellow pines of this region belong to the following three species: *Pinus echinata*, *Pinus rigida* and *Pinus Virginiana*, the latter two species having no value for lumber, and the first species appearing in such irregular admixture and of such scarce occurrence as to be commercially valueless.

Affidavit C. A. Schenck, Vol. II., pp. 6, 7.
Affidavit W. J. Mosenthal, Vol. II., p. 17.

The yellow pines of the region are affected by a species of bark beetle (*Dendroctonus frontalis*),

which is known to be the chief insect enemy of the pine family throughout the United States.

Affidavit C. A. Schenck, Vol. II., p. 7.
Affidavit Jno. M. Clancy, Vol. I., p. 4.
Affidavit W. J. Mosenthal, Vol. I., p. 4.

It was noticed in the examination of 1906 that the yellow pines throughout the district were for the most part green and apparently healthy, and in instances where dead yellow pines were found it was invariably found, upon examination, that these pines had been infested by this insect, and that death was without doubt due to it.

Affidavit J. M. Clancy, Vol. I., pp. 4 and 5.
Affidavit Schenck, Vol. II., p. 7.
Affidavit Mosenthal, Vol. II., p. 17.

The white pines of the region, which comprise about one-fourth of one per cent. of the stand of timber during the year 1906, have shown increased mortality. These white pines, on account of their scarcity, are not of economic value. They cannot be used for lumber. The mortality among the white pines noticed in the region under discussion has been found to exist in New England and in various regions throughout the United States hundreds of miles from smelters. This condition is due to the same insect (*Dendroctonus frontalis*), and upon an examination it was found that in every instance in the region alleged to be affected where these white pines were suffering from excessive mortality, the bark beetles above mentioned infested the trees. *Unquestionably the mortality of these white pines is due to that insect and not to the sulphur fumes, though the natives of the region ascribe the condition of the white pines to the sulphur fumes*

Affidavit of John M. Clancy, Vol. I., pp. 4 and 5.

Affidavit of C. A. Schenck, Vol. II., p. 7.
Affidavit of C. D. Howe, Vol. II., p. 11.
Affidavit of W. J. Mosenthal, Vol. II., p. 17.

It is respectfully submitted that those citizens whose affidavits were produced by plaintiff, alleging damage to the woodlands and crops and pastures, are mistaken in their belief that injury is done by the fumes of the copper companies, and erroneously assume that any damage whether by frost, excessive rain, insects, reckless management or other cause is due to the operations of the copper companies. As stated by Dr. Schenck in his affidavit on page 5 of Volume II.:

> "It is well at this point to refer to affiant's forecast given at the occasion of the investigation in 1905, to the effect that hardwoods discolored by sulphur fumes (or any other cause) are neither killed nor permanently damaged. The absolute truth of this forecast was clearly proven by the conditions prevailing in the hardwood lands in 1906. The woods found discolored in September, 1905, were found as green in June, 1906, as if they had never inhaled any sulphur fumes."

And as further stated by Dr. Schenck on page 10 of Volume II.:

> "That the woodlands of Northern Georgia on the whole are worthless as such, and that operations at Ducktown are in no wise responsible for this fact. Hardwoods discolored in 1905 have formed normal shutes and normal foliage in the spring of 1906."
>
> "*That the land owners in Northern Georgia are inclined to attribute to the action of sui-*

phur fumes any actual damage to their crops, their orchards, their pastures and their woodlands caused by frost, drought, excessive rainfall, insects, fungus, diseases, fires and reckless management."

And this is also referred to in the affidavit of Forester Walter J. Mosenthal in Volume II. on page 19:

> "Frequently farmers attribute any unhealthy appearance of the leaves of apple trees to the action of the smoke. As a matter of fact there is no doubt in affiant's opinion that such unhealthy appearance in the leaves is due to the attacks of the insects and fungi. As an instance in point a citizen of Morgantown, Georgia, was interviewed and stated that his peach trees had developed a disease which at first he had ascribed to the action of sulphur smoke. Subsequently he sent a specimen to the State Entomologist of the State of Georgia who stated that the disease of the trees was caused by a fungus disease known as a blight, and was in no way ascribable to the action of the sulphur smoke."

This erroneous assumption in ascribing any and all damage or deterioration to the sulphur fumes is also referred to in affidavit of Forester John M. Clancy in Vol. I. at bottom of page 3 and top of page 4:

> "This affiant sought for complaining natives and in every instance made personal examination of alleged injury from Copper Company's smoke, and in most instances these investigations were made in company with the owners of the lands on which alleged injury occurred, and it was invariably found upon investigation, that in such instances where natives claimed that trees had been

killed by sulphur fumes, such trees were infested with bark beetles of a species known to have killed large tracts of timber in many districts throughout the United States."

And further on page 5:

"Stag headed trees were found throughout this territory, but the average number of them were no greater than in other parts of the Southern Appalachian range. Some of the natives claim that these stag-headed trees were due to fumes from the smelting works. This is a wrong assumption, and is in no way ascribable to sulphur fumes. A stag-headed tree is a tree that has reached maturity and whose vitality is beginning to wane. In following up the few complaints of the natives, affiant found that in every instance the death of the trees was due to insects. This was borne out by repeated painstaking examinations."

The economic conditions prevailing in the region under discussion have been greatly affected by many natural adverse elements.

Referring again to the article of Mr. Overton H. Price on page 363–5 of the Year Book of 1900, he says:

"FIRE.

Fire has done, and continues to do, enormous damage in the Southern Appalachians. This has been the result not only of local conditions, which are exceedingly favorable to fires, but of a very passive sentiment in regard to them. In most great forest regions, with increase in population has grown a more determined attitude toward forest fires and a consequent falling off in the frequency of their occurrence. This has not yet been the case in the Southern Appalachians. The area

burned over annually has incresed rather than diminished, and the general feeling among the natives is one of somewhat placid resignation to an evil which is not fully realized and which is considered almost inevitable. Inevitable it surely is not; but there are several factors which combine to render fires in this region exceedingly difficult to check when once they are started. The absence of snow except for short periods, or of a marked rainy season, makes the danger a generally constant one throughout the time when the trees are leafless. There are seldom in the higher mountains any clearings or natural openings to serve as fire breaks, and the forests contain a large amount of dead timber, which adds power to the fire.

Causes of Fires.

There is not enough game in the Southern Appa'achians to encourage camping during the autumn and winter months, and very few of the forest fires can be laid to campers. The numbers set maliciously is also small. Some are undoubtedly started each year by carelessness in the lumber camps, from the burning of tops and branches in the recent clearings, or by tourists and cattlemen. *By far the larger number, however, are the result of the long-established practice of burning over the woods in the autumn under the belief that better pasturage is thus obtained the following year.* These fires are set by the farmers on the area upon which they expect to turn out their sheep and cattle during the next season, and there is rarely an attempt made to confine them unless a neighbor's house or barn should be endangered. The consequence is that, except when isolated by roads or

clearings, they often spread from the wood lots of the valleys and foothills in which they are set out to the forests of the higher mountains, where they burn unmolested for days or even weeks, until finally extinguished by rain, snow, contrary wind or lack of inflammable material in the sparse forests of the stony upper slopes. These fires are set year after year upon the same areas. They decrease annually in heat and power on the areas already burned over until finally, with almost every vestige of the humus destroyed and the mineral soil baked and hardened, there is but little left upon the ground to burn except the leaf fall of the preceding season.

He says on page 364:

DAMAGE BY FIRES.

"The immediate damage done by fire in the Southern Appalachians is much slighter than in the evergreen forests of the North and West. Crown fires are rare, except in particularly dry seasons and under a high wind, and it is seldom that trees are consumed or even killed outright, except in second growth and young woods. The chief harm done is in the killing of young tree growth and in the decay which starts from the scars left at the base of the trees, to which the yellow poplar, the white oak and the hickories are particularly susceptible. The first thing for the timber cruiser here, after he has satisfied himself of the size and quality of the merchantable stand, is to look for traces of severe fires. Should they have run over the area, it is possible that the labor and loss in timber of butting off the decayed portion at the base of the tree may seriously impair the profit from the lumbering.

"Apart from damage to the merchantable

stand, the result of fire is here also greatly to disturb the balance between the different trees, a matter of some importance where there is so large a number in mixture, many of which are practically worthless. For example, the dogwood, sourwood, black jack and scrub oak offer great resistance to fire, and are characteristic kinds in the young growth on burned-over lands. Repeated fires on white oak and poplar land will soon so dry out and impoverish the soil as to render it unfit for the reproduction of those species, to which a moist rich soil is necessary. On the foothills and in the larger valleys, where the shortleaf pine enters prominently into the mixture, oak forests are constantly being converted into pine forests through the agency of fires. A dense growth of kalmia is frequently the result of repeated fires on south slopes and renders the growth of the seedlings difficult or even impossible."

The Pastures.

It cannot be insisted that there is any injury whatever by sulphur fumes to the pasturage afforded by the grasses of the region alleged to be affected; and on the contrary it is submitted that the record clearly shows that the woodlands have been depleted for many years by the natives in order that pasturage may be afforded for the cattle of the local inhabitants.

Article of Overton H. Price above mentioned.

Affidavit of Jno. M. Clancy, Vol. I., p. 3.

Affidavit of C. A. Schenck, Vol. II., p. 7.

Affidavit of W. J. Mosenthal, Vol. II., p. 19.

Farm Lands.

It is submitted that the entire number of affidavits filed herewith demonstrate beyond doubt that the farm lands of the region under discussion are not affected by sulphur fumes. It is shown beyond question by all of these affidavits that the soil of the country is not adapted to agricultural pursuits but that where the inhabitants give reasonable care to their farming lands and their agricultural pursuits they are enabled to raise as good crops as the soil will support, and, though plaintiff produce affidavits which allege damage to crops and trees, these affidavits are based on the erroneous assumption that all injuries to crops and trees, whether from frost, fires, insect, careless management, or other causes, are due to the sulphur fumes.

Affidavit of C. A. Schenck, Vol. II., p. 8.
Affidavit of W. J. Mosenthal, Vol. II., p. 18.
Affidavits of citizens.

Public Roads.

The public roads of the region alleged to be injured are in no wise affected. They are as good and as bad as the mountain roads of the general Appalachian system. Any erosion of these roads is caused by the general natural conditions, described by Mr. Price in his article in the Year Book of 1900 by the forest fires, and by the simple fact that the roads are not properly ditched, drained nor cared for.

Affidavit C. A. Schenck, Vol. II., p. 8.
Affidavit W. J. Mosenthal, Vol. II., p. 19.

THE STREAMS.

The streams of the territory alleged to be affected drain into Tennessee with one exception, a small creek which drains southward. The entire territory within the State of Georgia which is alleged to be affected drains into the Ocoee River, and thence inte the Hiwasee River and on into Tennessee. It will be seen by the United States Government Reports of "Progress of Stream Measurements for 1903, Part 2, and 1904, Part 5, that of all of the streams which flow into the rivers of the Tennessee Valley, which includes the French Broad, the Tennessee, the Little Tennessee River, the Hiwasee River and the Ocoee River, the Ocoee River for those two years (1903 and 1904) maintained its mean average flow better than any other stream."

See U. S. Government Reports of progress of Stream Measurements, 1903, Part 2, and 1904, Part 5.

During the year 1906 there was an excessive rainfall throughout the entire Appalachian region, so that there can be no serious argument that the sulphur fumes diminished the precipitation of moisture by affecting the humidity of the atmosphere.

Affidavit, C. A. Schenck, Vol. II., p. 9.
Affidavit, W. J. Mosenthal, Vol. II., p. 20.

As hereinbefore stated, the examinations made of the territory during the summer and fall of 1906 were made for the purpose of comparison of the condition existing in 1906 after the tall stack of the Tennessee Copper Company had been erected, as compared with the conditions existing in the summer and fall of 1905 prior to the use of that tall stack.

It is respectfully submitted that the affidavits of citizens and residents (Vol. I.) of the entire region

and the affidavits of the foresters show conclusively that no damage is done to the surrounding country, both near and far, by the operations of the Tennessee Copper Company.

This statement could have been borne out by the affidavits of hundreds of other citizens and residents of said region. It is also borne out by the affidavits of C. A. Schenck, Walter J. Mosenthal, Arthur H. Case and the photographs filed as exhibits to the affidavit of Arthur H. Case. These photographs show that the condition existing in the spring of 1906 had not changed in the fall of 1906; that the foliage then thriving was in good condition.

In order that we might more clearly explain conditions by distances we have subdivided the affidavits of various residents of the district alleged to be affected and have subdivided the photographs according to distances and it is demonstrated in this subdivision beyond all question that throughout the entire district there is no damage from the fumes emitted from the works of the Tennessee Copper Company.

Exhibits A-28, B-28, affidavit of Arthur H. Case taken at a distance of 1 1/2 miles from the smelter show at that distance healthy and thriving condition of vegetation. The same is found with Exhibits A-33, B-33, at 1 1/2 miles.

We refer also in the distance of two miles from the smelter to the following affidavits in Volume 1:

J. R. Elrod, p. 17.
N. C. Bandy, 19.
J. B. Witt, 24.
G. W. Abernathy, 30.
F. M. Jones, 31.
N. C. Powell, 33.
W. B. Garrett, 35.
J. M. Garrett, 36.
A. A. McKinney, 39.
J. H. Johnson, 42.
Jas. Aiken, 45.
J. J. King, 56.

W. M. Foster, 59.
Joe Howard, 61.
Thos. Mashburn, 64.
J. L. Hickey, 65.
G. C. Wallace, 67.
A. J. Kell, 69.
J. J. Barclay, 70.
H. F. Barclay, 72.
W. J. Matthews, 80.
A. M. Ammons, 94.
C. M. Ledford, 100.

Showing that no injury is being done in the distance of two and four miles from the smelter, we particularly refer to the following photographic exhibits to the affidavit of Arthur H. Case:

A–13.	B–15.	3 1/2 miles from smelter.
A–14.	A–14.	3 1/2 miles from smelter.
A–15.	B–15.	4 miles from smelter.
A–31.	B–31.	3 1/2 miles from smelter.
A–32.	B–32.	2 1/2 miles from smelter.
C–6.		3 1/2 miles from smelter.

And we also refer to the following affidavits in Vol. I.:

N. C. Brady, p. 19.
Jas. Aiken, p. 45.
W. R. Ledford, p. 48.
T. P. Owen, p. 96.
F. L. Harper, p. 109.
L. M. Owens, p. 128.

Showing that no injury is being done at the distances of four to eight miles from the smelter, we particularly refer to the following photographic exhibits to the affidavit of Arthur H. Case.

A–8.	B–A.	6 miles from smelter.
A–9.	B–9.	7 miles from smelter.
A–10.	B–10.	6 miles from smelter.
A–11.	B–11.	5 miles from smelter.

A-12. B-12. 4 1/2 miles from smelter.
A-16. B-16. 6 1/2 miles from smelter.
A-17. B-17. 7 1/2 miles from smelter.
A-24. B-24. 7 1/2 miles from smelter.
A-25. B-25. 6 1/8 miles from smelter.
A-26. B-26. 6 miles from smelter.
A-27. B-27. 4 miles.
A-30. B-30. 5 1/2 miles.
A-34. B-34. 5 1/2 miles.
A-35. B-35. 7 miles.
A-41. B-41. 7 7/8ths miles.
A-43. B-43. 5 miles.
A-44. B-44. 6 miles.
A-45. B-45. 7 miles.
A-46. B-46. 8 miles.
A-50. B-50. 7 3/4ths miles.
A-51. B-51. 6 miles.
A-52. B-52. 5 1/2 miles.
A-53. B-53. 4 miles.
C-27. 4 1/2 miles.

See also following affidavits in Vol. I.:

J. J. Vellenoweth, p. 43.
W. J. Mathews, 81.
J. N. Standridge, 86.
R. L. Standridge, 97.
C. N. Ledford, 100.
Eli Justice, 153.
J. M. Early, 171.

Showing that no injury is being done at the distance of from eight to twelve miles from the smelter, we particularly refer to the following photographic exhibits to the affidavit of Arthur H. Case:

A-5. B-5.
A-6. B-6. 10 1/2 miles from smelter.
A-7. B-7. 9 miles.
A-18. B-18. 8 1/2 miles from smelter.
A-19. B-19. 9 1/2 miles.
A-20. B-20. 10 miles.

A–21.	B–21.	11 miles.
A–22.	B–22.	9 1/2 miles.
A–23.	B–23.	8 1/2 miles.
A–29.	B–29.	8 miles.
A–36.	B–36.	9 miles.
A–37.	B–37.	10 miles.
A–38.	B–38.	12 miles.
A–39.	B–39.	11 1/2 miles.
A–40.	B–40.	9 miles.
A–47.	B–47.	9 miles.
A–48.	B–48.	11 1/2 miles.
A–49.	B–49.	8 miles.
C–1.		10 miles.
C–2.		10 1/2 miles.
C–7.		11 miles.
C–25.		11 1/2 miles.
C–26.		8 miles.
C–28.		11 miles.

See also the following affidavits in Volume I.:

W. J. De Hart, 85.
W. J. Neely, 123.
H. A. Mathews, 158.
Benj. Ellison, 170.
W. J. Parham, 172.
Francis Millsaps, 173.
F. M. Early, 174.

Showing that no injury is being done at the distances of twelve to sixteen miles from the smelter, we particularly refer to the following photographic exhibits to the affidavit of Arthur H. Case:

A–1.	B–1.	14 miles from smelter.
A–2.	B–2.	13 miles.
A–3.	B–3.	12 miles.
A–4.	B–4.	12 miles.
C–3.		12 miles.
C–4.		12 miles.
C–5.		12 miles.
C–8.		12 miles.

C-9. 13 1/4 miles.
C-10. 15 1/2 miles.
C-24. 14 1/2 miles.

We also refer to following affidavits in Volume I.:

J. J. Vellenoweth, 50.
E. B. Wilson, 78.
C. E. Foote, 83.
J. F. Smith, 102.
A. M. Price, 106.
M. L. Chancy, 115.
T. N. Henson, 130.
F. E. Hickey, 149.
G. M. Adams, 154.
C. W. Killian, 155.

Showing that no injury is being done at the distance of 16 to 20 miles from the smelter we particularly refer to the following photographic exhibits to the affidavit of Arthur H. Case:

C-11. 17 miles from smelter.
C-12. 18 miles.
C-13. 20 miles.
C-22. 16 1/2 miles.
C-23. 16 1/4 miles.

We also refer to the following affidavits in Vol. I.:

H. C. Parris, p. 82.
W. P. Barclay, 95.
C. W. Ledford, 100.
A. L. Barnett, 104.
B. Thomas, 116.
H. G. Smith, 134.
J. D. Jenkins, 136.
J. L Butler, 159.
J. T. Collins, 168.

Showing that no injury is being done at a greater distance than 20 miles from the smelter, we partic-

ularly refer to the following photographic exhibits to the affidavit of Arthur H. Case:

C–14. 21 miles.
C–15. 23 1/2 miles.
C–16. 23 1/2 miles.
C–17. 24 miles.
C–18. 22 1/2 miles.
C–19. 21 miles.
C–20. 20 1/2 miles.
C–21. 20 miles.

And we also refer to the following affidavits in Volume I. at greater distance than 20 miles.

R. A. Barclay, 52.
Arthur Witherow, 53.
J. J. Barclay, 70.
H. F. Barclay, 71.
W. C. Bowers, 75.
E. B. Wilson, 78.
H. C. Parris, 82.
C. E. Foote, 83.
E. L. Greer, 89.
Pearl Smith, 92.
C. M. Ledford, 100.
W. H. Barclay, 111.
W. T. Goss, 119.
W. H. Foster, 139.
H. S. Johnson, 147.
J. A. Thomason, 151.
C. V. Rogers, 152.

The counsel for the State of Georgia are attempting to show that the copper companies can manufacture sulphuric acid and thus dispose of the alleged injuries. But such condensation of the fumes is only a theory in its experimental stage and has never been reduced to practice. It is not known whether or not it is technically or commercially pos-

sible, and even though all of the fumes were condensed, the disposition of this vast amount of sulphuric acid would still remain a serious problem which might necessitate the discontinuance of copper mining and smelting in the United States.

See affidavit of Channing, filed April, 1906, and affidavit of Susmann, filed herewith, appearing in Vol. II., p. 22.

It is respectfully submitted that the affidavits filed herein show that the operations of the Tennessee Copper Company do not cause injury or damage to the surrounding country, and that whatever deterioration is found in the condition of the foliage and timber is not caused by the sulphur fumes from the plant of the Tennessee Copper Company.

It is further respectfully submitted that the discoloration appearing on the foliage in 1905, before the operation of the high stack, did not indicate injury or damage, for such foliage which appeared discolored in 1905, put forth healthy and growing foliage in 1906.

It is shown that those citizens who complain of injury erroneously attribute all deterioration or poor condition, whether from fire, insects, fungi, reckless management or other cause, to the smoke from the works of the Tennessee Copper Company. And this assumption is natural by reason of the agitation that has been stirred by a few individuals.

Referring to the affidavits of the experts filed in April, 1906, and to the actual conditions set forth in the affidavits of the citizens and foresters, filed herewith, we submit that the method now in operation at the Tennessee Copper Company and in use or being adopted by the largest copper smelting plants in the United States, namely, the use of the high stack, has proven itself most successful in elimi-

nating injury. The fact that the fumes travel through such wide area of air causes them to be so diffused and diluted as to reduce them to a point of innocuousness.

Counsel respectfully submits that if an opportunity were given for the examination of witnesses of both sides that it would be conclusively proven that the statements set forth in the plaintiff's bill and the affidavits produced by them are not only grossly exaggerated but are mistaken and without foundation in fact.

The citizens of northern Georgia in the region alleged by plaintiff to be affected by fumes do not want the copper companies to cease operations, and affidavits were obtained under misrepresentations.

A few individuals have either for personal or some ulterior motives started the agitation and have been trying to create a sentiment against the copper companies. They brought their influence to bear to induce the State of Georgia to start proceedings, and they have been the prime movers and agitators ever since.

Counsel for the State of Georgia are probably submitting large numbers of affidavits of citizens for the purpose of showing the sentiment among them. Such affidavits, however, do not in any way show the true sentiment of the citizens, not even of those citizens who signed such affidavits. A large number of those who made affidavits for the State of Georgia were induced to make them under misapprehensions and misrepresentations; a large number signed without reading them and without knowing the contents; a large number signed affidavits for the State of Georgia under the misrepresentations that the copper companies were about to

greatly extend their plant and overwhelm the entire region with their fumes, and that they would never get any damages unless they signed them; a large number had not been damaged, but signed affidavits because they feared from these representations that they would be damaged; even some of them who signed and still claim that they were damaged, would never have signed them had they thought there was any probability of forcing the mines to close down; and some of them signed from fear or favor because it had been represented to them that it was an easy matter for the companies to condense their fumes.

This new phase of the situation was brought to the attention of counsel at the eleventh hour, and as many affidavits as possible were secured in the short time remaining and are filed herewith.

Reference is made to the affidavit of Martin H. Vogel, Vol. II., page 27; affidavit of citizens W. R. Early, Vol. II., page 32; W. H. Carver, Vol. II., page 34; G. C. Stepp, Vol. II., page 36; George Lanning, Vol. II., page 39; R. H. Ledford, Vol. II., page 40; J. W. Hipp, Vol. II., page 43; W. J. Owenby, Vol. II., page 45; S. C. Davenport, Vol. II., page 46; H. K. Brown, Vol. II., page 48.

And in addition to this the great number of affidavits signed by citizens in behalf of the copper companies previously filed in this cause in April, 1906, and those filed herewith, and the fact that many more affidavits could have been secured, conclusively proves that the sentiment of the citizens of Northern Georgia is not in sympathy with the purpose of this suit. It is true that some of them who think that they are damaged would rather have the companies condense their fumes, but even most of those citizens who claim damage would

rather have them continue as they are than to have them cease operations.

The operations as now carried on by the Tennessee Copper Company are in accordance with the highest and best known method in the art and science of smelting copper ores, and there is no region in the United States better fitted for such operations.

To attempt to compel the copper companies to condense their fumes would be to force them to do what has never been demonstrated to be possible, and would be equivalent to enjoining the operations of the plant; and even if the fumes might be condensed, copper companies would be ruined financially unless they could commercially dispose of the product.

A temporary injunction would work not only irreparable injury and financial ruin to the defendant Tennessee Copper Company, but also starvation and misery to thousands of people and their families directly employed by the copper companies, and to the citizens of Northern Georgia and Southern Tennessee indirectly dependent on the copper companies for their livelihood. And manifestly a temporary injunction would in its far reaching effects operate oppressively, and would produce greater injury on the one side than its refusal on the other, even if damage were being done by these fumes, which is denied, and all the citizens would have a full, adequate and complete remedy at law, and the damages, if any, are in their nature susceptible to accurate approximation.

Respectfully submitted:

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